



# Grain Transportation Report

A weekly publication of the  
Transportation and Marketing Programs/Transportation Services Branch  
[www.ams.usda.gov/tmdtsb/grain](http://www.ams.usda.gov/tmdtsb/grain)

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**Rail grain movements to increase.** Rail movements of grain are expected to increase over the next 3–6 months. Producers are expected to sell more grain during the first half of the year. Also, train speeds are expected to improve, and less competition is expected for limited rail capacity.

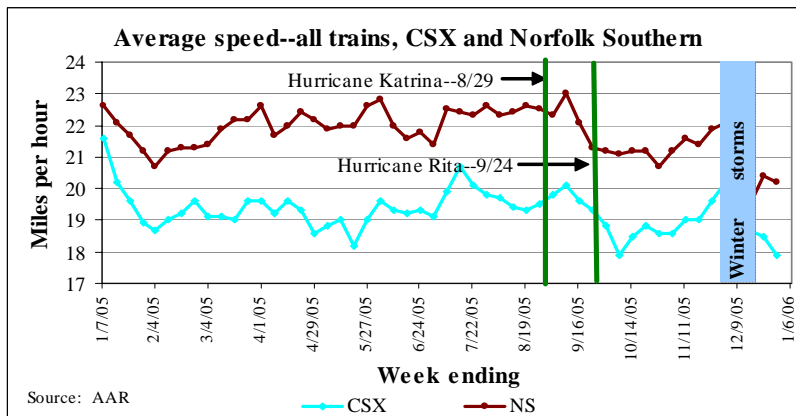
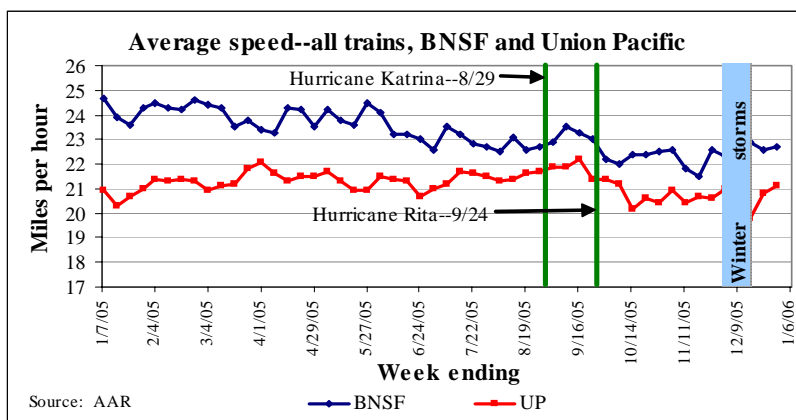
**PNW weather slows traffic.** Heavy rains in Washington and Oregon have resulted in blocked tracks due to rock slides and flash floods. A January 6, 2006, BNSF service advisory indicates that east and west grain traffic may be affected slightly, but north and south traffic has been delayed several days.

**Slower train speeds decrease rail capacity.** Grain-hauling capacity of U.S. railroads decreased this fall due to slower train speeds and rail congestion subsequent to Hurricanes Katrina and Rita and other weather problems. Train speeds between August 26 and October 7, 2005, dropped between 0.7 and 1.6 miles per hour—depending on the railroad—in response to the hurricanes.

Near the end of 2005, train speeds had dropped further (between 1.6 and 3 mph from August 26 speeds) due to winter storms and congestion.

Train speeds on Union Pacific (UP) and CSX are somewhat slower than those of BNSF and Norfolk Southern (NS). UP and CSX have been congested since August 2003 as a result of increased rail traffic demand coinciding with the newly enacted law allowing early retirement of train crews. In contrast, train speeds on BNSF and NS were not affected nearly as much, partly due to earlier implementation of operating systems using “scheduled railroad” principles.

Train speeds on the four largest U.S. railroads remain below their 3-year averages.



For the week ending December 30, 2005, BNSF is down 5 percent, CSX is down 15 percent, Norfolk Southern is down 16 percent, and UP is down 7 percent from their 3-year average train speeds. [Marvin.Prater@USDA.gov](mailto:Marvin.Prater@USDA.gov)

# Grain Transportation Indicators

**Table 1--Grain transport cost indicators\***

Week ending	Truck	Rail**	Barge	Ocean	
				Gulf	Pacific
01/11/06	167	307	211	176	182
Compared with last week	↑	↓	↓	↓	↓

\*Indicator: Base year 2000 = 100; Weekly updates include truck = diesel (\$/gallon); rail = nearby secondary rail market (\$/car); barge = spot Illinois River basis (index = percent of tariff rate); and ocean = routes to Japan (\$/metric ton)

\*\*The rail indicator is not an index. It is the difference between the nearby secondary rail market bid for this week and the average bid for year 2000 (+) 100.

Source: Transportation & Marketing Programs/AMS/USDA

**Table 2--Market update: U.S. origins to export position price spreads (\$/bushel)**

Commodity	Origin--destination	1/6/2006	12/30/2005
Corn	IL--Gulf	-0.64	-0.65
Corn	NE--Gulf	-0.81	-0.80
Soybean	IA--Gulf	-0.89	-0.99
HRW	KS--Gulf	-0.87	-0.87
HRS	ND--Portland	-1.45	-1.33

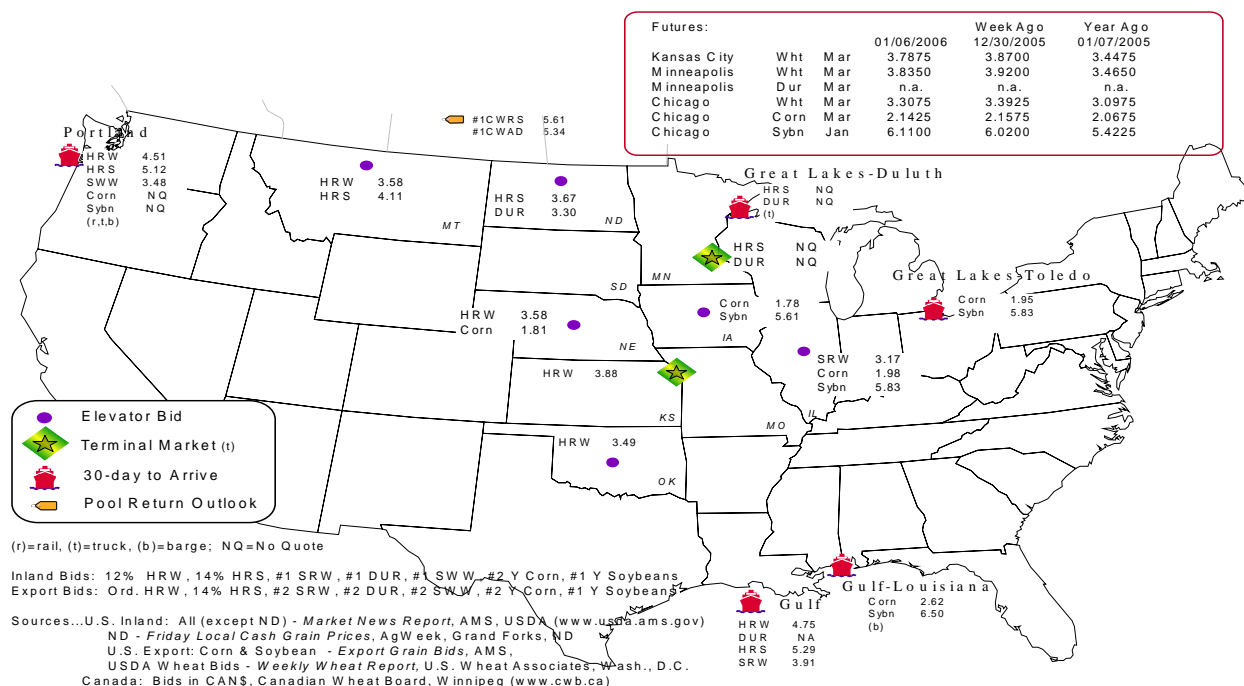
Note: nq = no quote

Source: Transportation & Marketing Programs/AMS/USDA

The **grain bid summary** illustrates the market relationships for commodities. Positive and negative adjustments in differential between terminal and futures markets, and the relationship to inland market points, are indicators of changes in fundamental market supply and demand. The map may be used to monitor market and time differentials.

Figure 1

## Grain bid summary



# Rail Transportation

**Table 3--Rail deliveries to port (carloads)\***

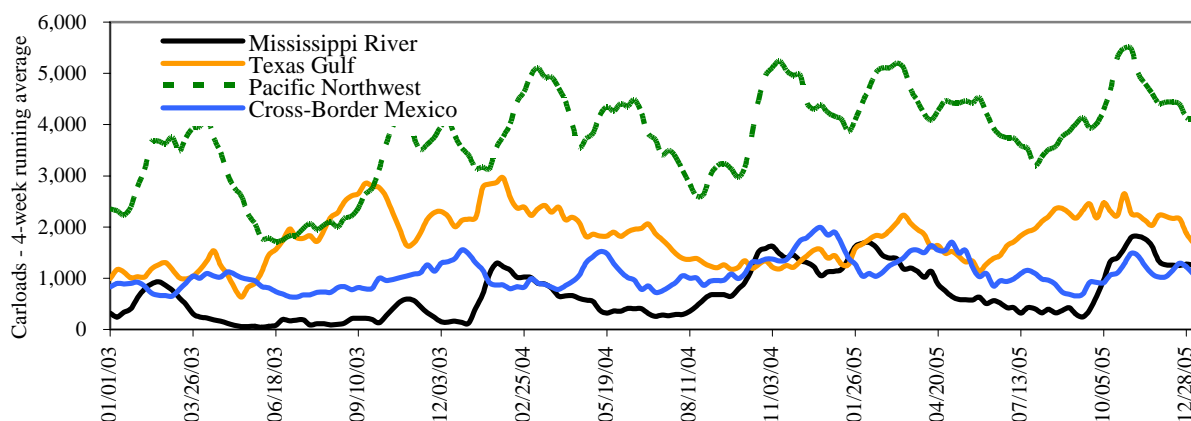
Week ending	Mississippi Gulf***	Texas Gulf	Cross-Border Mexico****	Pacific Northwest	Atlantic & East Gulf	Total
1/04/2006 <sup>p</sup>	1,312	1,445	706	4,024	520	8,007
12/28/2005 <sup>r</sup>	1,126	1,389	1,144	3,161	328	7,148
2006 YTD	1,312	1,445	706	4,024	520	8,007
2005 YTD	1,185	1,432	2,085	3,515	353	8,570
2006 as % of 2005	111	101	34	114	147	93
Total 2005**	50,677	99,462	60,885	223,328	15,752	450,104
Total 2004	43,102	92,073	59,102	209,625	10,986	414,888

(\*) Incomplete Data; as of 9/22/04, Cross-Border movements included; (\*\*) Includes 53rd week; (\*\*\*) Mississippi Gulf data back to January, 2004 from several new sources has been added; (\*\*\*\*) **Cross-border Mexico data for 2004 and 2005 has been amended to reflect amendments submitted by our sources.** YTD= year-to-date; p=preliminary data; r = revised data

Railroads originate approximately 40 percent of U.S. grain shipments. Trends in these loadings are indicative of market conditions and expectations.

Figure 2

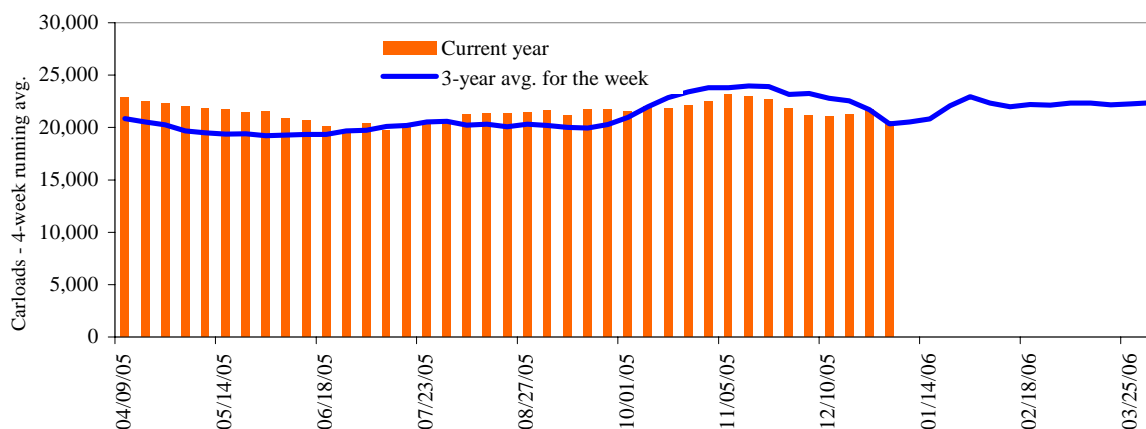
## Rail deliveries to port



Source: Transportation & Marketing Programs/AMS/USDA

Figure 3

## Total weekly U.S. grain car loadings for Class I railroads



Source: Association of American Railroads

**Table 4--Class I rail carrier grain car bulletin (grain carloads originated)**

Week ending	East		West			U.S. total	Canada	
	CSXT	NS	BNSF	KCS	UP		CN	CP
12/31/05	2,278	2,915	6,840	351	4,786	17,170	4,049	2,816
This week last year	1,965	2,261	7,935	593	4,460	17,214	3,038	2,122
2005 YTD	152,060	167,465	476,033	27,459	307,170	1,130,187	225,817	215,145
2004 YTD	142,206	169,650	458,587	27,618	327,510	1,125,571	237,664	210,060
2005 as % of 2004	107	99	104	99	94	100	95	102
Total 2004	142,206	169,650	458,587	27,618	327,510	1,125,571	237,664	210,060

Source: Association of American Railroads (www.aar.org); YTD = year-to-date

**Table 5--Rail car auction offerings\*, week ending 01/07/06 (\$/car)\*\***

Delivery for:	Feb-06	Mar-06	Apr-06
BNSF <sup>1</sup>			
COT/N. grain	no offer	no offer	\$62
COT/S. grain	no offer	\$82	\$28
UP <sup>2</sup>			
GCAS/Region 1	no offer	\$90	no offer
GCAS/Region 2	no offer	\$139	no offer

\*Auction offerings are for single-car and unit train shipments only.

\*\*Average premium/discount to tariff, last auction

<sup>1</sup>BNSF - COT = Certificate of Transportation

N includes: ID, MN, MT, ND, OR, SD, WA, WI, WY, and Manitoba, Canada.

S includes: CO, IA, IL, KS, MO, NE, OK, TX, NM, AZ, CA, UT, and NV.

<sup>2</sup>UP - GCAS = Grain Car Allocation System

Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

Region 2 includes: CO, IA, KS, MN, NE, WY, and Kansas City and St. Joseph, MO.

Source: Transportation & Marketing Programs/AMS/USDA

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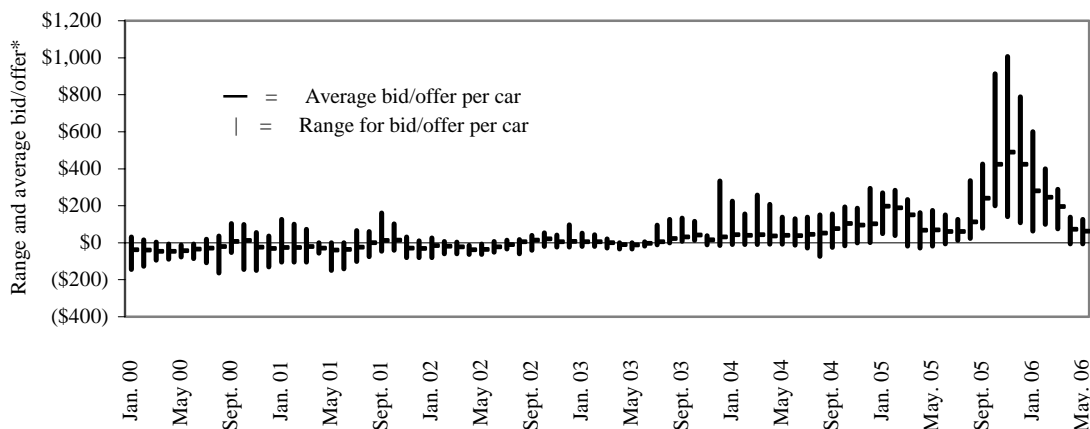
Rail service may be ordered directly from the railroad via **auction** for guaranteed service, or via tariff for nonguaranteed service, or through the secondary railcar market.

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The **secondary rail market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The **auction and secondary rail** values are indicators of rail service quality and demand/supply.

Figure 4

**Secondary rail car market, delivery month-year**



\*up to 6 months of trading

Source: Transportation & Marketing Programs/AMS/USDA

**Average bid/offer** is the simple average of all the weekly bids/offers over the entire period (up to 6 months) for guaranteed railcars that are traded for delivery in a particular month.

**Range for bid/offer** shows the range of average weekly bids/offers over the entire period (up to 6 months) for guaranteed railcars that are traded for delivery in a particular month.

**Table 6--Weekly secondary rail car market, week ending 01/07/06 (\$/car)\***

	Delivery period			
	Feb-06	Mar-06	Apr-06	May-06
BNSF-GF	\$208	\$167	\$50	\$43
Change from last week	-\$67	-\$58	\$0	\$0
UP-Pool	\$217	\$138	\$100	\$100
Change from last week	-\$89	-\$75	\$0	\$0

\*Average premium/discount to tariff, \$/car-last week

Note: Bids listed are market INDICATORS only & are NOT guaranteed prices,

Missing value = no bid quoted; GF = guaranteed freight; Pool = guaranteed pool

Sources: Transportation and Marketing Programs/AMS/USDA

Data from Atwood/ConAgra, Harvest States Co-op, James B. Joiner Co., Tradewest Brokerage Co.

**Table 7--Tariff rail rates for unit and shuttle train shipments\***

**Effective date:**

	<b>Origin Region</b>	<b>Destination Region</b>	<b>Rate/car</b>	<b>Rate/metric ton</b>	<b>Rate/bushel**</b>
<b><u>Unit train*</u></b>					
Wheat	Chicago, IL	Albany, NY	\$1,861	\$20.51	\$0.56
	Kansas City, MO	Galveston, TX	\$2,020	\$22.27	\$0.61
	South Central, KS	Galveston, TX	\$2,450	\$27.01	\$0.74
	Minneapolis, MN	Houston, TX	\$2,420	\$26.68	\$0.73
	St. Louis, MO	Houston, TX	\$2,360	\$26.01	\$0.71
	South Central, ND	Houston, TX	\$4,261	\$46.97	\$1.28
	Minneapolis, MN	Portland, OR	\$3,963	\$43.68	\$1.19
	South Central, ND	Portland, OR	\$3,963	\$43.68	\$1.19
	Northwest, KS	Portland, OR	\$4,490	\$49.49	\$1.35
	Chicago, IL	Richmond, VA	\$2,161	\$23.82	\$0.65
Corn	Chicago, IL	Baton Rouge, LA	\$2,610	\$28.77	\$0.73
	Council Bluffs, IA	Baton Rouge, LA	\$2,470	\$27.23	\$0.69
	Kansas City, MO	Dalhart, TX	\$2,365	\$26.07	\$0.66
	Minneapolis, MN	Portland, OR	\$3,130	\$34.50	\$0.88
	Evansville, IN	Raleigh, NC	\$1,961	\$21.62	\$0.55
	Columbus, OH	Raleigh, NC	\$1,850	\$20.39	\$0.52
	Council Bluffs, IA	Stockton, CA	\$3,606	\$39.75	\$1.01
	Chicago, IL	Baton Rouge, LA	\$2,655	\$29.27	\$0.80
Soybeans	Council Bluffs, IA	Baton Rouge, LA	\$2,515	\$27.72	\$0.75
	Minneapolis, MN	Portland, OR	\$3,610	\$39.79	\$1.08
	Evansville, IN	Raleigh, NC	\$1,961	\$21.62	\$0.59
	Chicago, IL	Raleigh, NC	\$2,561	\$28.23	\$0.77
<b><u>Shuttle Train*</u></b>					
Wheat	St. Louis, MO	Houston, TX	\$1,820	\$20.06	\$0.55
	Minneapolis, MN	Portland, OR	\$3,763	\$41.48	\$1.13
Corn	Fremont, NE	Houston, TX	\$2,304	\$25.40	\$0.65
	Minneapolis, MN	Portland, OR	\$3,024	\$33.33	\$0.85
Soybeans	Council Bluffs, IA	Houston, TX	\$2,412	\$26.59	\$0.72
	Minneapolis, MN	Portland, OR	\$3,170	\$34.94	\$0.95

\*A unit train refers to shipments of at least 52 cars. Shuttle train rates are available for qualified shipments of more than 100 cars that meet railroad efficiency requirements.

\*\*Approximate load per car = 100 short tons: corn 56 lbs./bu., wheat & soybeans 60 lbs./bu.

Sources: [www.bnsf.com](http://www.bnsf.com), [www.cpr.ca](http://www.cpr.ca), [www.csx.com](http://www.csx.com), [www.uprr.com](http://www.uprr.com)

**Table 8--Tariff rail rates for U.S. bulk grain shipments to Mexico, 2005**

Effective date: 1/02/06

Commodity	Origin State	Border crossing region	Train size	Rate <sup>1</sup>	Rate/metric ton	Rate/bushel**
Wheat	KS	Brownsville, TX	Shuttle	\$2,851	\$29.13	\$0.79
	ND	Eagle Pass, TX	Unit	\$4,086	\$41.75	\$1.14
	OK	El Paso, TX	Shuttle	\$2,235	\$22.84	\$0.62
	OK	El Paso, TX	Unit	\$2,432	\$24.85	\$0.68
	AR	Laredo, TX	Unit	\$2,383	\$24.35	\$0.66
	IL	Laredo, TX	Unit	\$3,188	\$32.57	\$0.89
	MT	Laredo, TX	Shuttle	\$3,980	\$40.67	\$1.11
	TX	Laredo, TX	Shuttle	\$2,165	\$22.12	\$0.60
	MO	Laredo, TX	Shuttle	\$2,731	\$27.90	\$0.76
	WI	Laredo, TX	Unit	\$3,405	\$34.79	\$0.95
Corn	NE	Brownsville, TX	Shuttle	\$3,543	\$36.20	\$0.92
	NE	Brownsville, TX	Unit	\$3645*	\$37.24	\$0.95
	IA	Eagle Pass, TX	Unit	\$3,773	\$38.55	\$0.98
	MO	Eagle Pass, TX	Shuttle	\$3040*	\$31.06	\$0.79
	NE	Eagle Pass, TX	Shuttle	\$3440*	\$35.15	\$0.89
	IA	Laredo, TX	Shuttle	\$3,696	\$37.76	\$0.96
Soybean	IA	Brownsville, TX	Shuttle	\$3,318	\$33.90	\$0.92
	MN	Brownsville, TX	Shuttle	\$3,614	\$36.93	\$1.00
	NE	Brownsville, TX	Shuttle	\$3,127	\$31.95	\$0.87
	NE	Eagle Pass, TX	Shuttle	\$3,203	\$32.73	\$0.89
	IA	Laredo, TX	Unit	\$3,357	\$34.30	\$0.93

A unit train refers to shipments of at least 52 cars. Shuttle train are available for qualified shipments of more than 100 cars that meet railroad efficiency requirements.

<sup>1</sup>Rates are based upon published tariff rates for high-capacity rail cars.

\*High-capacity rate not available, rate estimated using published low-capacity tariff rate x 1.08

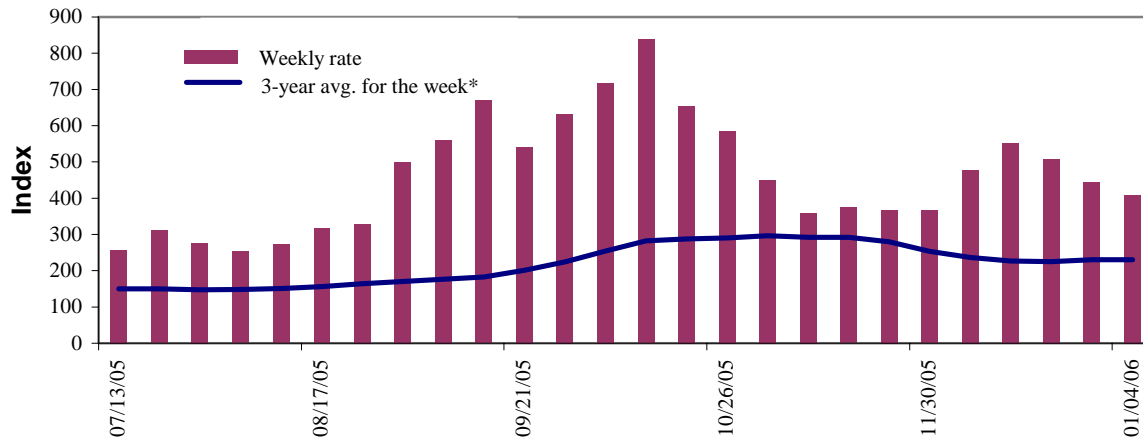
\*\*Approximate load per car = 97.87 metric tons: Corn 56 lbs/bu, Wheat & Soybeans 60 lbs/bu

Sources: www.bnsf.com, www.uprr.com

# Barge Transportation

Figure 5

## Illinois River barge rate index - quotes



Note: Index = percent of tariff rate; \*4-week moving average

Source: Transportation & Marketing Programs/AMS/USDA

The **Illinois River barge rate index** averaged 183 percent of the **benchmark tariff rates** between 1999 and 2001, based on weekly market quotes. The **index**, along with **rate quotes** and **futures market bids** are indicators of grain transport supply and demand.

**Table 9--Barge rate quotes: southbound barge freight**

Location	1/4/2006	12/28/2005	Feb. '06	Apr. '06
Twin Cities	n/a	n/a	n/a	378
Mid-Mississippi	n/a	n/a	n/a	342
Illinois River	409	443	396	337
St. Louis	375	400	360	303
Lower Ohio	393	392	363	326
Cairo-Memphis	352	348	333	296

Index = percent of tariff, based on 1976 tariff benchmark rate

Source: Transportation & Marketing Programs/AMS/USDA

### Calculating barge rate per ton:

$(\text{Index} * 1976 \text{ tariff benchmark rate per ton}) / 100$

Select applicable index from market quotes included in tables on this page. The 1976 benchmark rates per ton are provided in map (see figure 6).

**Note:** The Illinois barge rate is for Beardstown, IL, La Grange Lock & Dam (L&D 8).

Figure 6

## Benchmark tariff rates

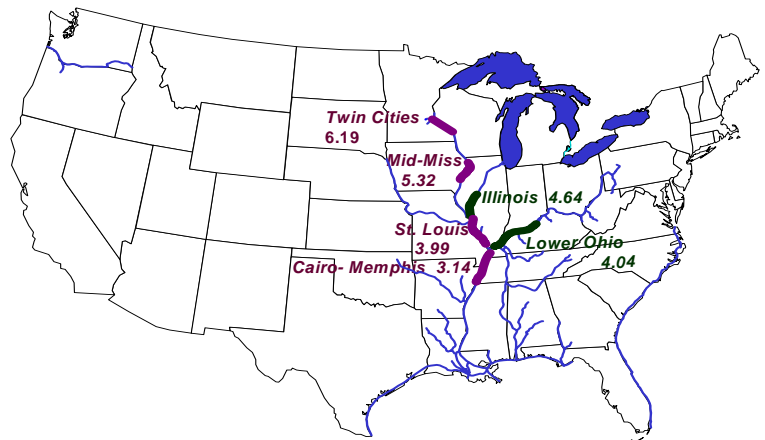
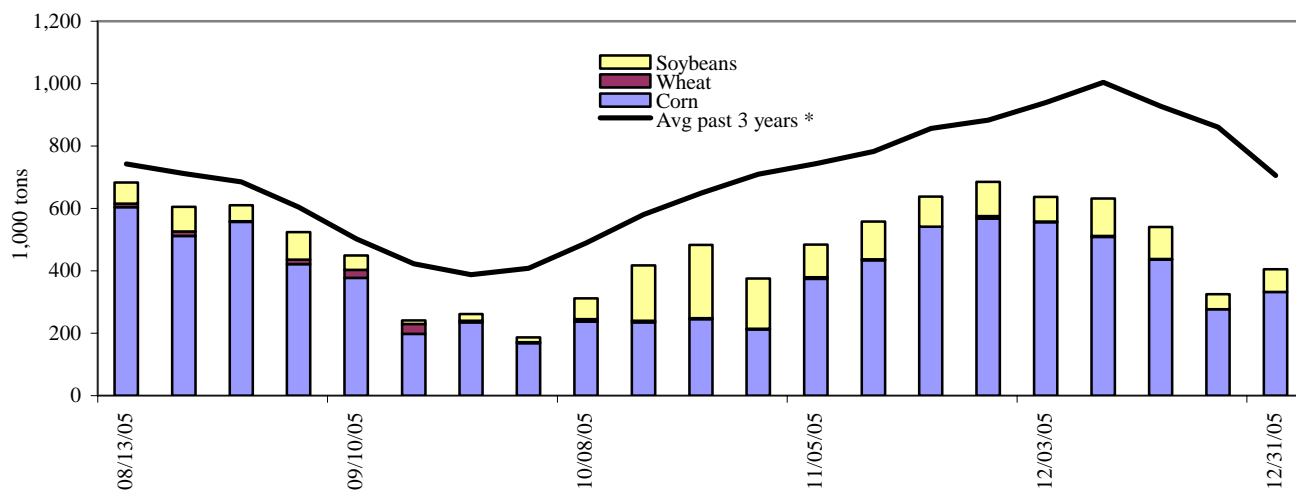




Figure 7

**Barge movements on the Mississippi River (Locks 27 - Granite City, IL)**

\* 4-week moving average

Source: Transportation &amp; Marketing Programs/AMS/USDA

**Table 10--Barge grain movements (1,000 tons)**

Week ending 12/31/2005	Corn	Wheat	Soybean	Other	Total
<b>Mississippi River</b>					
Rock Island, IL (L15)	0	0	0	0	0
Winfield, MO (L25)	26	0	6	4	36
Alton, IL (L26)	333	0	80	5	418
Granite City, IL (L27)	332	0	73	4	409
<b>Illinois River (L8)</b>	256	0	47	0	303
<b>Ohio River (L52)</b>	140	4	91	0	235
<b>Arkansas River (L1)</b>	0	15	10	16	41
2005 YTD	23,761	1,620	7,276	731	33,388
2004 YTD	25,796	2,674	6,684	813	35,967
2005 as % of 2004 YTD	92	61	109	90	93
Total 2004	26,235	2,701	6,784	843	36,563

YTD (year-to-date) and calendar year total includes Miss/27, Ohio/52, and Ark/1; "Other" refers to oats, barley, sorghum, and rye.

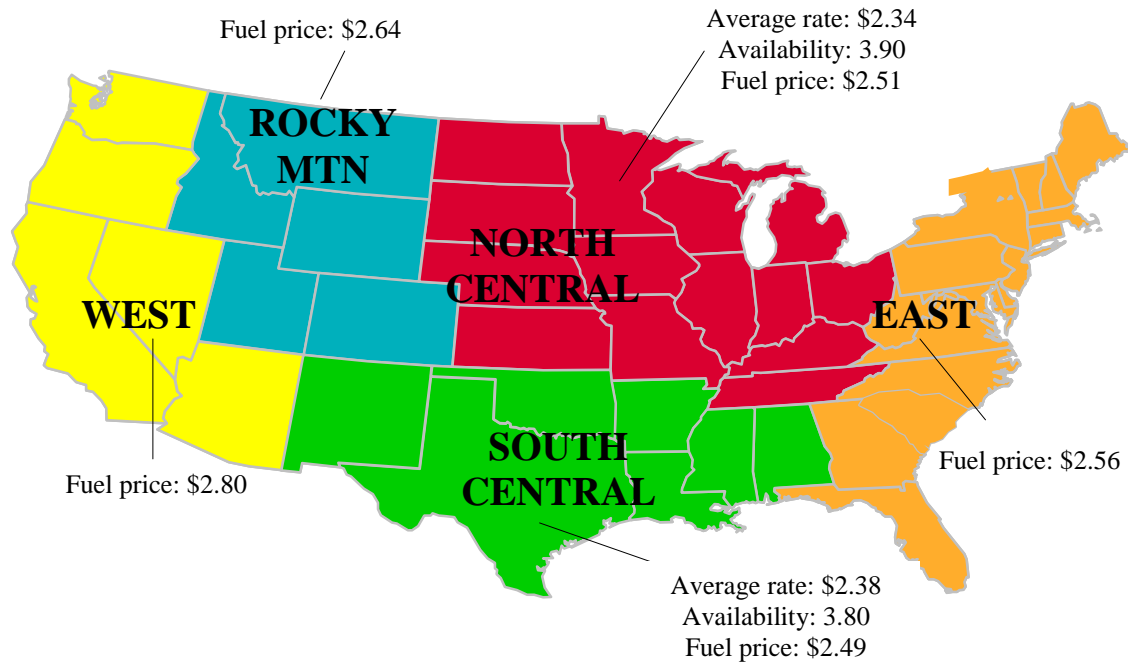
Source: U.S. Army Corp of Engineers ([www.mvr.usace.army.mil/mvrmi/omni/webrrpts/default.asp](http://www.mvr.usace.army.mil/mvrmi/omni/webrrpts/default.asp))

Note: Total may not add exactly, due to rounding

# Truck Transportation

Figure 8

U.S. grain truck market advisory, 3rd quarter 2005\*



\*Average rate per loaded mile, based on truck rates for trips of 25, 100, and 200 miles

Note: Fuel prices are a quarterly average (unit per gallon)

Fuel price data source: Energy Information Administration, U.S. Department of Energy, [www.eia.doe.gov](http://www.eia.doe.gov)

Table 11--U.S. grain truck market overview, 3rd quarter 2005

Region	25 miles	100 miles	200 miles	Truck availability	Truck activity	Future truck activity
	<sup>1</sup> Rate per mile			Rating compared to same quarter last year		
				1=Very easy to 5=Very difficult	1=Much lower to 5=Much higher	
<b>National average<sup>2</sup></b>	<b>3.16</b>	<b>2.38</b>	<b>2.04</b>	<b>3.6</b>	<b>2.9</b>	<b>3.2</b>
North Central region	2.82	2.22	1.98	3.9	2.9	3.2
Rocky Mountain	4.23	2.28	1.96	2.4	2.8	3.2
South Central	2.73	2.28	2.14	3.8	3.0	3.3
West	4.54	3.29	2.65	3.7	3.3	3.0

<sup>1</sup>Rates are based on trucks with 80,000 lb gross vehicle weight limit

<sup>2</sup>National average includes: AR, CO, IA, IL, IN, KS, LA, MN, MS, ND, NE, OH, OK, OR, SD, TX, and WA.

Source: Transportation and Marketing Programs/AMS/USDA

The **weekly diesel price** provides a proxy for trends in U.S. truck rates. Diesel fuel is a significant expense for truck grain movements, accounting for 37 percent of the estimated variable cost.

**Table 12--Retail on-highway diesel prices\*, week ending 1/09/06 (US\$/gallon)**

Region	Location	Price	Change from	
			Week ago	Year ago
I	East Coast	2.528	0.047	0.529
	New England	2.676	0.031	0.513
	Central Atlantic	2.626	0.036	0.493
	Lower Atlantic	2.473	0.053	0.547
II	Midwest <sup>1</sup>	2.451	0.039	0.540
III	Gulf Coast <sup>2</sup>	2.453	0.039	0.577
IV	Rocky Mountain	2.421	0.029	0.544
V	West Coast	2.577	0.058	0.604
	California	2.601	0.063	0.587
Total	U.S.	2.485	0.043	0.551

\*Diesel fuel prices include all taxes.

Source: Energy Information Administration/U.S. Department of Energy ([www.eia.doe.gov](http://www.eia.doe.gov))

<sup>1</sup>Same as North Central

<sup>2</sup>Same as South Central

# Grain Exports

**Table 13--U.S. export balances (1,000 metric tons)**

Week ending 1/	Wheat						Corn	Soybeans	Total
	HRW	SRW	HRS	SWW	DUR	All wheat			
12/29/2005	2,692	307	1,036	661	31	4,727	5,991	4,375	15,093
This week year ago	1,482	412	1,054	768	115	3,831	6,975	5,434	16,240
Cumulative exports-crop year 2/									
2005/06 YTD	6,320	1,230	4,825	2,571	508	15,453	16,073	10,623	42,149
2004/05 YTD	5,825	2,401	4,908	3,099	372	16,605	16,413	14,676	47,694
2005/06 as % of 2004/05	108	51	98	83	137	93	98	72	88
2004/05 Total	9,407	3,217	8,083	4,773	686	26,117	44,953	29,878	100,948
2003/04 Total	12,697	3,785	6,928	4,895	1,053	29,359	47,704	24,108	101,171

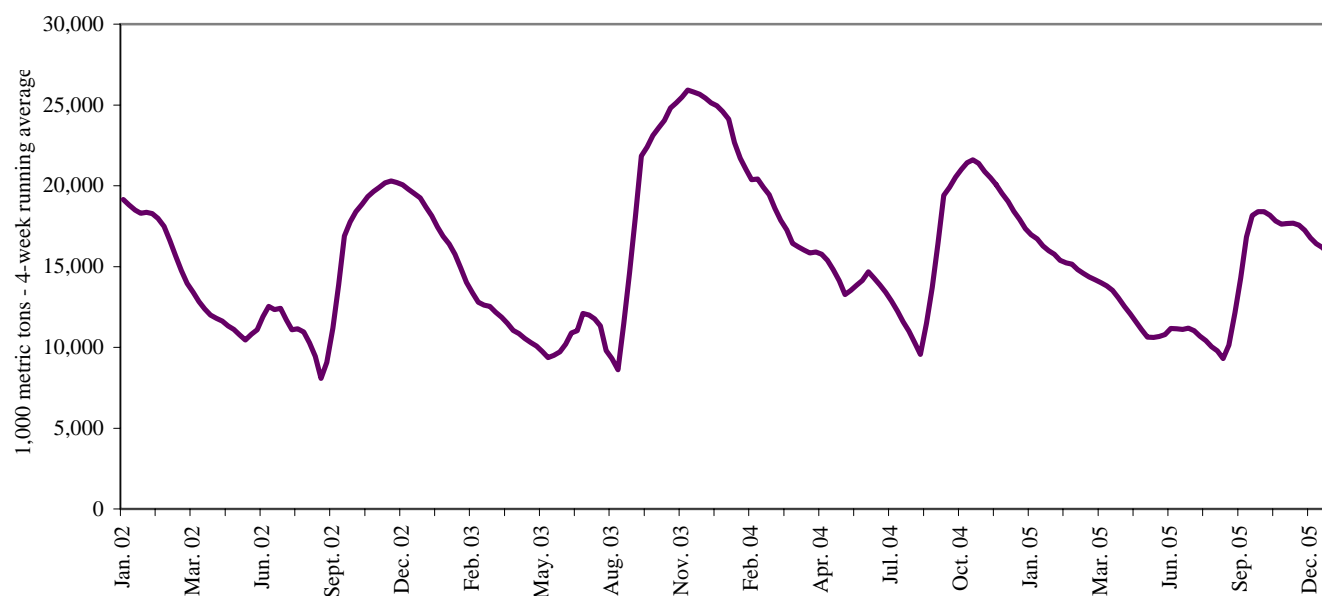
Note: YTD = year-to-date. Crop year: wheat = 6/01-5/31, corn & soybeans = 9/01-8/31, 1/ = Current unshipped export sales to date

2/ = Shipped export sales to date

Source: Foreign Agricultural Service/USDA ([www.fas.usda.gov](http://www.fas.usda.gov))

Figure 9

**U.S. grain, unshipped export balance, including wheat, corn, and soybean sales**



Source: Foreign Agricultural Service/USDA ([www.fas.usda.gov](http://www.fas.usda.gov))

**Table 14--Select U.S. port regions - grain inspections for export (1,000 metric tons)**

Week ending	Pacific Region			Mississippi Gulf			Texas Gulf			Port Region total		
	Wheat	Corn	Soybeans	Wheat	Corn	Soybeans	Wheat	Corn	Soybeans	Pacific	Mississippi	Texas
01/05/06	203	116	60	92	611	432	292	0	8	380	1,135	300
2006 YTD	203	116	60	92	611	432	292	0	8	380	1,135	300
2005 YTD	234	157	59	105	348	643	49	0	0	449	1,096	49
2006 as % of 2005	87	74	102	87	176	67	602	0	0	84	104	619
2005 Total *	10,801	10,104	6,225	4,643	27,596	14,793	7,743	810	36	27,130	47,032	8,589

Source: Grain Inspection, Packers and Stockyards Administration/USDA ([www.gipsa.usda.gov](http://www.gipsa.usda.gov)); YTD: year-to-date; \*includes weekly revisions

The United States exports approximately one-quarter of the grain it produces. On average, it includes nearly 45 percent of U.S.-grown wheat, 35 percent of U.S.-grown soybeans, and 20 percent of the U.S.-grown corn. Approximately 55 percent of these U.S. export grain shipments departed through the Mississippi Gulf region in 2004.

Figure 10

**U.S. grain inspected for export (wheat, corn, and soybeans)**

Source: Grain Inspection, Packers and Stockyards Administration/USDA ([www.gipsa.usda.gov](http://www.gipsa.usda.gov))

# Ocean Transportation

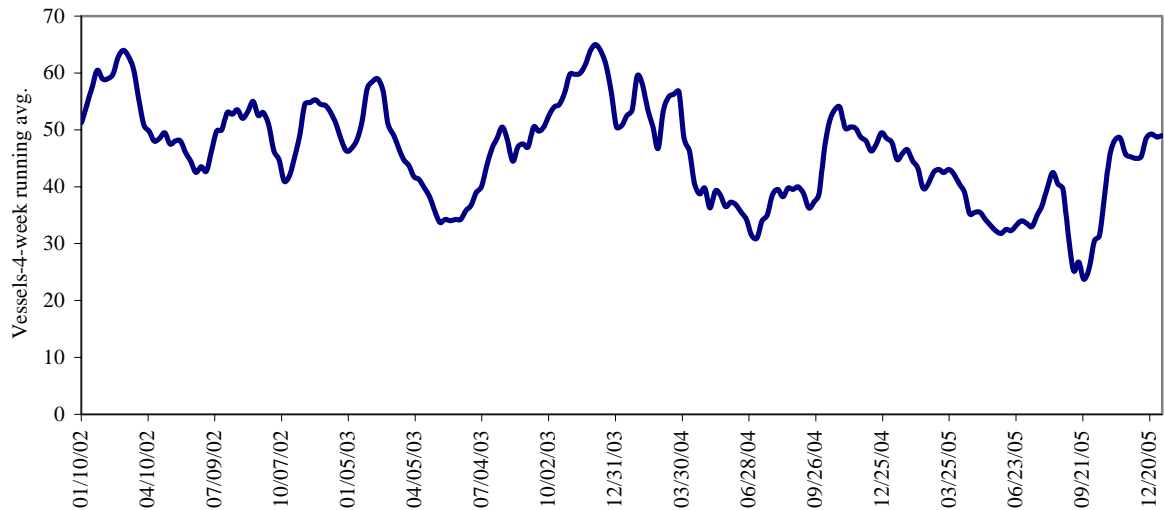
**Table 15--Weekly port region grain ocean vessel activity (number of vessels)**

Date	Gulf			Pacific Northwest	Vancouver B.C.
	In port	Loaded 7-days	Due next 10-days	In port	In port
1/5/2006	28	52	59	7	6
12/29/2005	37	42	72	6	2
2005 range	(11..57)	(10..56)	(18..76)	(2..16)	(0..17)
2005 avg.	27	39	53	9	7

Source: Transportation & Marketing Programs/AMS/USDA

Figure 11

**Gulf Port grain vessel loading (past 7 days)**



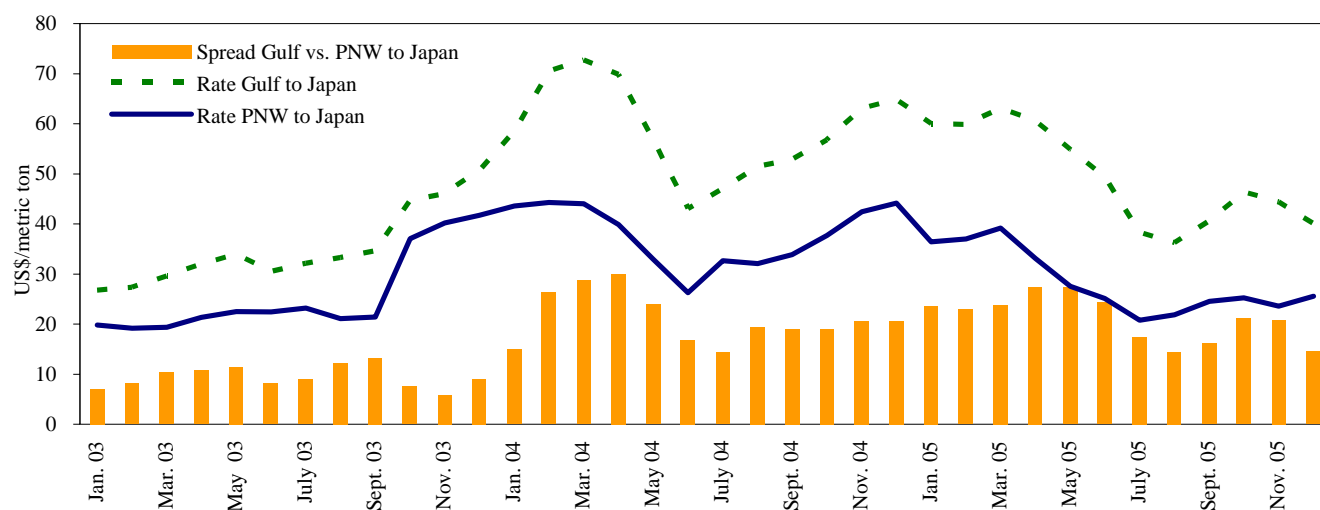
Source: Transportation & Marketing Programs/AMS/USDA

**Table 16--Quarterly ocean freight rates (average rates & percentage changes) (US\$/metric ton)**

Countries/ regions	2005 3 <sup>rd</sup> qtr	2004 3 <sup>rd</sup> qtr	Percent change	Countries/ regions	2005 3 <sup>rd</sup> qtr	2004 3 <sup>rd</sup> qtr	Percent change
<b>Gulf to</b>				<b>Pacific NW to</b>			
Japan	36.33	50.08	-27	Japan	---	37.00	---
China		54.00	---	<b>Argentina/Brazil to</b>			
Taiwan	---	---	---	China	32.00		
N. Africa	24.25	---	---	N. Africa	40.00	---	---
Med. Sea	---	---	---	Turkey	25.00	---	

Source: Maritime Research, Inc. (www.maritime-research.com)

Figure 12

**Grain vessel rates, U.S. to Japan**

Source: Baltic Exchange (www.balticexchange.com)

**Table 17--Ocean freight rates for selected shipments, week ending 1/7/06**

Export region	Import region	Grain	Month	Volume loads (metric tons)	Freight rate (\$/metric ton)
U.S. Gulf	Kenya*	Sorghum&Corn	Dec 29/Jan 9	15,450 / 3,200	89.23
U.S. Gulf	Iraq	Wheat	Dec 14/18	50,000	52.50
U.S. Gulf	Japan	Hvy Grain	Nov 1/5	54,000	47.50
U.S. Gulf	Rotterdam	Hvy Grain	Dec 10/20	65,000	19.70
Australia	Italy	Wheat	Dec 5/25	55,000	26.00
Germany	Tunisia	Barley	Dec 6/12	25,000	24.25
River Plate	Italy	Hvy Grain	Jan 1/5	50,000	34.00
Germany	Spain Mediterranean	Wheat	Jan 1/7	50,000	12.75
Lithuania	Portugal	Wheat	Jan 6/10	25,000	15.00
Romania	Spain Mediterranean	Wheat	Jan 10/17	25,000	15.00
River Plate	Poland	Grains	Dec 25/Jan 5	30,000	39.00

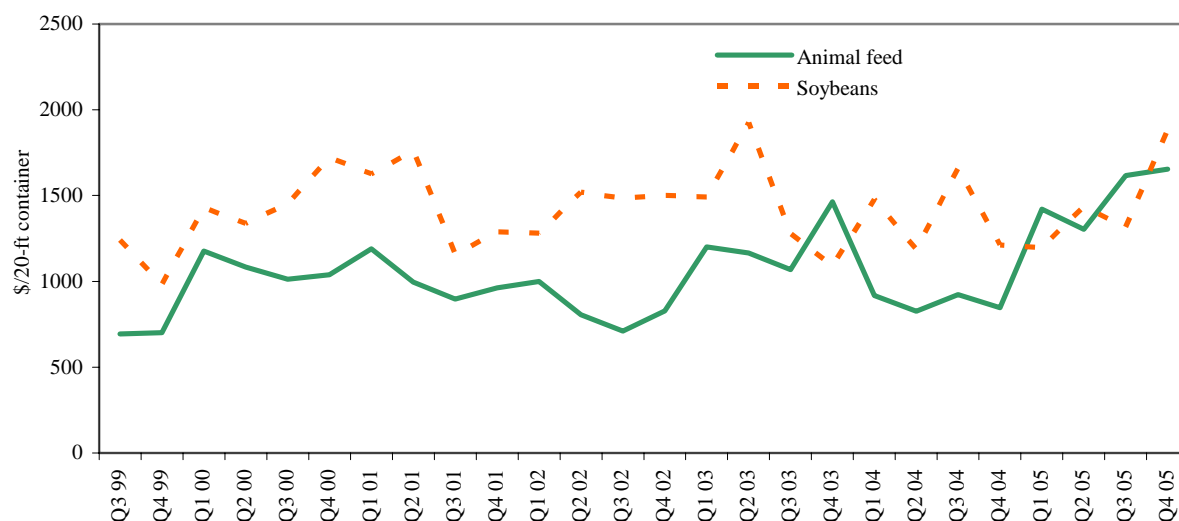
Rates shown are for metric ton (2,204.62 lbs. = 1 metric ton), F.O.B., except where otherwise indicates; op = option

\*75 percent of food aid from the United States is required to be shipped on U.S. flag vessels. The vessels are limited in availability resulting in higher rates. In addition, destinations receiving food aid generally lack adequate port unloading facilities, requiring the vessel to remain in port for a longer duration than normal.

Source: Maritime Research Inc. (www.maritime-research.com)

Figure 13

**Weighted average rates<sup>1</sup> for containerized shipments of animal feed and soybeans to selected Asian countries**



<sup>1</sup> Animal Feed: Busan-Korea (12%), Kaohsiung-Taiwan (34%), Tokyo-Japan (35%), Hong Kong (13%), Bangkok-Thailand (6%) and soybeans: Busan-Korea (1%), Keelung-Taiwan (89%), Tokyo-Japan (8%), Bangkok-Thailand (1%), Hong Kong (1%)

Quarter 4, 2005.

Source: Ocean Rate Bulletin, Transportation & Marketing Programs/AMS/USDA

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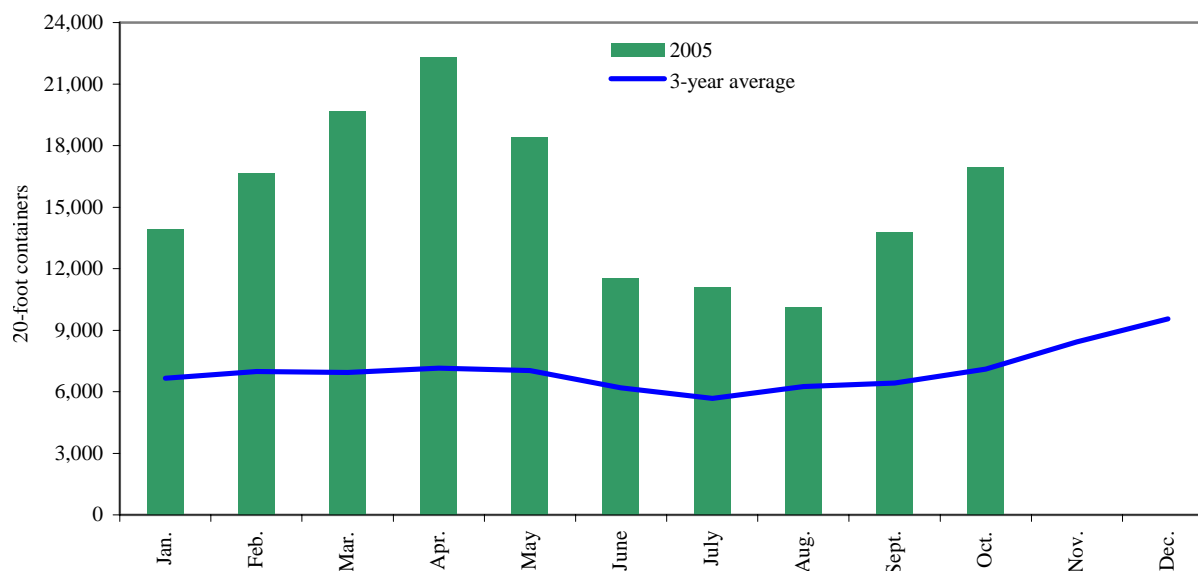
Container ocean freight rates – average rate per twenty-foot equivalent unit (TEU) weighted by shipping line market share and trade route.

During 2004, containers were used to transport 2 percent of total U.S. grain exported, and 3 percent of total U.S. grain exported to Asia.

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Figure 14

**Monthly shipments of containerized grain to Asia for 2005 compared with a 3-year average**



Source: Port Import Export Reporting Service (PIERS), *Journal of Commerce*

Note: PIERS data is available with a lag of approximately 40 days



# Brazil Transportation

Figure 15  
Routes and Regions considered in the Brazilian soybean export transportation indicator<sup>1</sup>



<sup>1</sup> Regions comprised 84 percent of Brazilian soybean production, 2003  
Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

**Table 18--Truck rates for selected Brazilian soybean export transportation routes, 3rd quarter 2005**

Route #	Origin <sup>1</sup> (reference city)	Destination	Distance (miles) <sup>2</sup>	Weight(%) <sup>3</sup>	Freight price (per 100 miles) <sup>4</sup>
1	Northwest RS <sup>5</sup> (Cruz Alta)	Rio Grande	288	16.6	4.39
2	North MT(Sorriso)	Santos	1190	10.1	6.99
3	North MT(Sorriso)	Paranaguá	1262	9.5	6.39
4	South GO(Rio Verde)	Santos	587	7.0	7.13
5	South GO(Rio Verde)	Paranaguá	726	5.6	5.60
6	North Center PR(Londrina)	Paranaguá	268	4.4	8.49
7	Western Center PR(Mamborê)	Paranaguá	311	3.9	5.88
8	Triangle MG(Uberaba)	Santos	339	3.8	9.93
9	West PR(Assis Chateaubriand)	Paranaguá	377	3.7	5.95
10	West Extreme BA(São Desidério)	Ilhéus	544	3.6	7.56
11	Southeast MT(Primavera do Leste)	Santos	901	3.6	6.76
12	Southeast MT(Primavera do Leste)	Paranaguá	975	3.3	6.14
13	Southwest MS(Maracaju)	Paranaguá	612	3.1	5.69
14	Southwest MS(Maracaju)	Santos	652	2.9	5.66
15	West PR(Assis Chateaubriand)	Santos	550	2.5	5.65
16	Western Center RS(Tupanciretã)	Rio Grande	273	2.4	5.60
17	Southwest PR(Chopinzinho)	Paranaguá	291	2.3	8.34
18	Eastern Center PR(Castro)	Paranaguá	130	2.3	9.53
19	South Center PR(Guarapuava)	Paranaguá	204	2.1	8.32
20	North Center MS(São Gabriel do Oeste)	Santos	720	2.0	5.25
21	Ribeirão Preto SP(Guairá)	Santos	314	1.5	7.98
22	Northeast MT(Canarana)	Santos	950	1.4	7.62
23	Assis SP(Palmital)	Santos	285	1.2	8.01
24	Northeast MT(Canarana)	Paranaguá	1075	1.2	6.72
<b>Average</b>			<b>626</b>	<b>100</b>	<b>6.48</b>

<sup>1</sup>Although each origin region comprises several cities, the main city is considered as a reference to establish the freight price

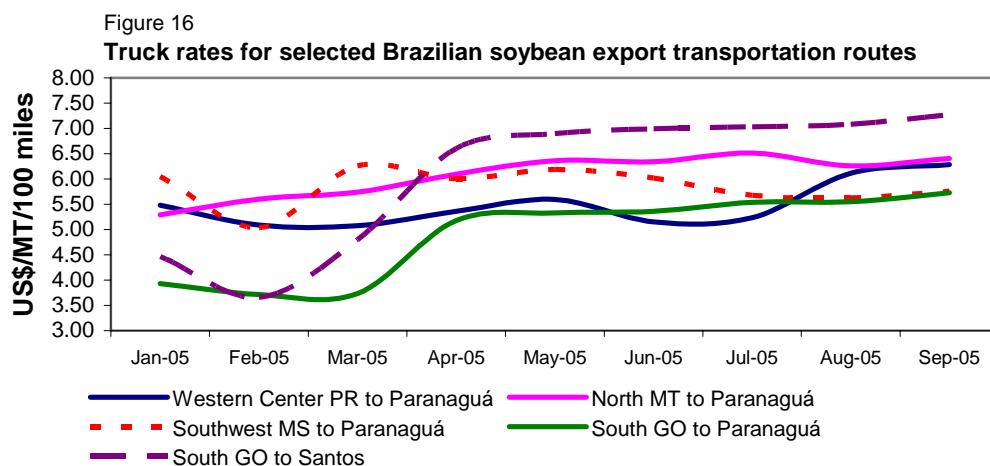
<sup>2</sup>Distance from the main city of the considered region to the mentioned ports

<sup>3</sup>The weight is directly proportional to the amount of production in each region

<sup>4</sup>US\$ per metric ton (average monthly exchange rate from "Banco Central do Brasil" was used to convert Brazilian reais to the U.S. dollar)

<sup>5</sup>RS = Rio Grande Do Sul, MT= Mato Grosso, GO = Goiás, PR = Paraná, MG = Minas Gerais, BA = Bahia, MS = Mato Grosso Do Sul, SP = São Paulo

Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS



Source: ESALQ/ USP (University of São Paulo, Brazil) and USDA/AMS

**Table 19--Monthly Brazilian soybean export truck transportation cost index**

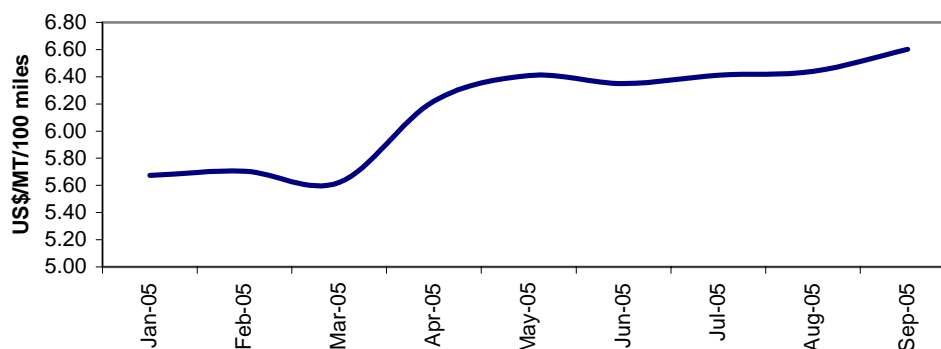
Month	Freight price* (per 100 miles)	Index variation (%) (Base: prior month)	Index value (Base: Jan. 05 = 100)
Jan. 05	5.67		100.00
Feb. 05	5.71	0.5	100.54
Mar. 05	5.62	-1.5	99.08
Apr. 05	6.22	10.6	109.61
May 05	6.41	3.1	112.96
Jun. 05	6.35	-0.9	111.90
Jul. 05	6.41	1.0	112.99
Aug. 05	6.44	0.4	113.46
Sep. 05	6.60	2.5	116.36

\*weighted average and quoted in US\$ per metric ton

Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

Figure 17

**Brazilian soybean export truck transportation weighted average prices, 2005**



Source: ESALQ/USP (University of São Paulo, Brazil) and USDA/AMS

**Table 20--Quarterly ocean freight rates for shipping soybeans from selected Brazilian ports to Hamburg, Germany (US\$/metric ton)\***

Ports	2005 1st qtr	2005 2nd qtr	2005 3rd qtr
Santos	45.53	45.84	44.54
Paranagua	44.64	44.84**	43.54
Rio Grande	44.20	44.39	43.04

\*correspond to the average actual values negotiated between shippers and carriers and weighted according to the magnitude of the shipped volumes

Source: Sistema de Informações de Fretes, SIFRECA, ESALQ/USP (University of São Paulo, Brazil)

\*\*Revised figure

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## Related Websites

*Agricultural Container Indicators*  
*Ocean Rate Bulletin*

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